CHEMISTRY COURSE OFFERINGS
SUMMER, 2017
(03/16/2017)

First Summer Session (May 24 – June 30)

CHEM 0001-A - CHEMICAL FUNDAMENTALS W/LAB
Atomic and molecular structure, intermolecular forces and states of matter, the relation of structure and bonding to the physical and chemical properties of matter, patterns of chemical reactions, stoichiometry, and thermochemistry. Additional topics may include qualitative thermodynamics and equilibrium and chemistry of materials. Four lectures, two laboratories, two recitations. Only one of CHEM 1, 11, or 16 may be counted for credit. ***Palluccio***

CHEM 0051-A - ORGANIC CHEMISTRY I
Structure, bonding, conformational analysis, functional groups, and stereochemistry. Organic reactions, synthesis, and mechanisms including acid/base reactions, nucleophilic substitution and elimination, reactions of alcohols, ethers, aldehydes, ketones, carboxylic acids and their derivatives, and amines. Tools for structure determination including nuclear magnetic resonance and infrared spectroscopy. Four lectures, two recitations. (Note: The laboratory course, CHEM 53, is normally taken concurrently with CHEM 51.) ***Kryatov***
Prerequisites: *CHEM 2 or 12.*

CHEM 0053-A - ORGANIC CHEMISTRY I LABORATORY
Experiments based on topics in Chemistry 51. Two weekly laboratories. One-half course. ***Kryatov***
Requires completion or same term enrollment of CHEM 0051

Second Summer Session (July 5 – August 11)

CHEM 0002-B - CHEMICAL PRINCIPLES W/LAB
Properties of solutions, chemical kinetics and thermodynamics, physical and chemical equilibria, aqueous equilibria (acid-base, precipitation, and complex formation), electrochemistry. Additional topics may include environmental, nuclear, and coordination chemistry, and chemistry of selected elements. Four lectures**,** two laboratories, two recitations. Only one of CHEM 2 or 12 may be counted for credit. ***Palluccio***
Recommendations: *Chemistry 1, 11, 16, or consent*

CHEM 0052-B - ORGANIC CHEMISTRY II
Continuation of CHEM 51. Structure, properties, and reactions of alkenes, alkynes, conjugated unsaturated systems and aromatic compounds. Radical reactions. Mechanisms, retrosynthetic analysis and synthetic strategy. Additional topics such as the chemistry of carbohydrates, lipids, amino acids, and nucleic acids. Four lectures, two recitations. (Note: The laboratory course, CHEM 54, is normally taken concurrently with CHEM 52.) ***Kryatov***
Prerequisites*: CHEM 0051.*

CHEM 0054-01 - ORGANIC CHEMISTRY II LABORATORY
Experiments based on topics in Chemistry 52. Two weekly laboratories. One-half course. ***Kryatov***
Prerequisites: *CHEM 0053*
Requires completion or same term enrollment of CHEM 52